

# **HCP Purpose and Need**

- Purpose of the HCP: fulfill application requirements for an Incidental Take Permit, including providing measures to fully offset the impacts of take of the Covered Activities.
- Because Coalition upstream and midstream activities may result in take of listed bat species, the need for the HCP includes:
  - · Comprehensively address and streamline permitting
  - Allow year-round development of O&G projects
  - Address mitigation needs for multiple species with similar natural history and ecological needs
  - Provide long-term assurances to Coalition members to respond to fluctuating economic conditions
  - Enables coordination with State species programs

# The HCP Covered Species are five bat species with similarities in life history and ecology:

- · Indiana bat (endangered)
- · Northern long-eared bat (threatened)
- · Little brown bat (not listed but under review)
- Tri-colored bat (not listed but under review)
- · Eastern small-footed bat (not listed)



#### **HCP Elements**

- Background
  - Covered Activities
  - Covered Species
- Covered Lands
- · Impacts and take assessment
- Conservation program
  - Biological goals and objectives
  - · Impact avoidance, minimization, and mitigation measures
  - Monitoring and adaptive management strategy
  - Reporting
- · Plan Implementation
  - Changed and Unforeseen Circumstances
  - Permit amendments
- Alternatives
- Funding
- References

#### **Avoidance & Minimization Measures**

- ${\boldsymbol{\cdot}}$  Carve-out areas where Covered Activities would not occur
- Best Management Practices (BMPs)
- Construction and environmental permit requirements
- Construction management and sequencing to reduce impacts e.g., co-locate facilities, reuse disturbed areas, project planning
- Re-vegetation / reclamation

# **Mitigation Measures**

- Protect habitat
  - Off-site land protection/preservation/restoration
  - On-site (leased lands) measures term credits
  - Conservation easements/leasing forest lands
  - Habitat exchange/banking
  - Hibernacula protection acquisition, gating
- White Nose Syndrome research and remediation
- · Stacking mitigation
  - · Providing benefits to multiple species
- Landscape approach
- Mitigation entity(ies)/coordinator(s)

# **Potential Impacts and Take Assessment**

- Covered Activities evaluated for potential effects to the Covered Species
- Designed to address uncertainties over 50-year permit term
- Predictive, not prescriptive
- Primary impact to the Covered Species is from loss of forested habitat

### **Conservation Program**

- Proposed Biological Goals and Objectives:
  - Goal 1: Contribute to the long-term persistence of the Covered Species within the HCP Plan Area by providing measures to support maternity and hibernating colonies of the Covered Species.
  - Goal 2: Minimize impacts to Covered Species by contributing to the long-term preservation of suitable summer and winter habitat for the Covered Species within the HCP Plan Area.

Specific objectives toward meeting each goal are tied to proposed conservation measures

#### **Monitoring and Adaptive Management**

- · Compliance monitoring
  - Ensure compliance with the permit take limit
  - Reporting over life of permit term
- · Effectiveness monitoring
  - Ensure conservation program is achieving biological goals and objectives
- · Adaptive Management
  - Respond to uncertainty
  - Remain in permit compliance